

## 05—340 Removal and installation of slide rails

### Tightening torques

Nm

Cylinder head cover capped nuts and bolts

5

Radiator drain plug

10

Ball locating ring in chain tensioner

25

Necked-down screw camshaft sprocket

80

Balance disc to crankshaft

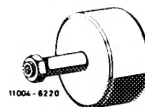
400+50

Oil cooler drain plug

35

### Special tools

Impact extractor for bearing pin (basic unit)



116 589 20 33 00

Bolt 6 x 50 for impact extractor



116 589 01 34 00

Bolt 6 x 150 for impact extractor

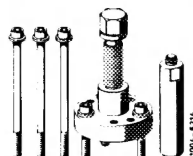


116 589 02 34 00

Bolt 10 x 100 for impact extractor

116 589 03 34 00

Balance disc extractor



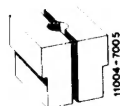
116 589 10 33 00

Rigid chain tensioner



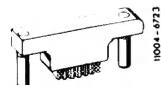
110 589 03 31 00

Chain tensioner holder



110 589 02 31 00

Holder



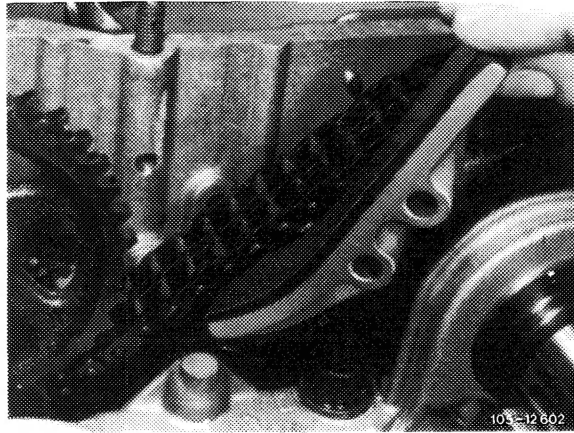
116 589 01 40 00

### Sliding rail (2) in camshaft housing

1 Remove valve cover and knock out sliding rail pin with an impact extractor.  
Remove sliding rail.

2 Watch position of sliding rail when installing.

Coat collar of sliding rail pin with a sealing compound.



### Sliding rail (2a) in cylinder head

1 Remove radiator.

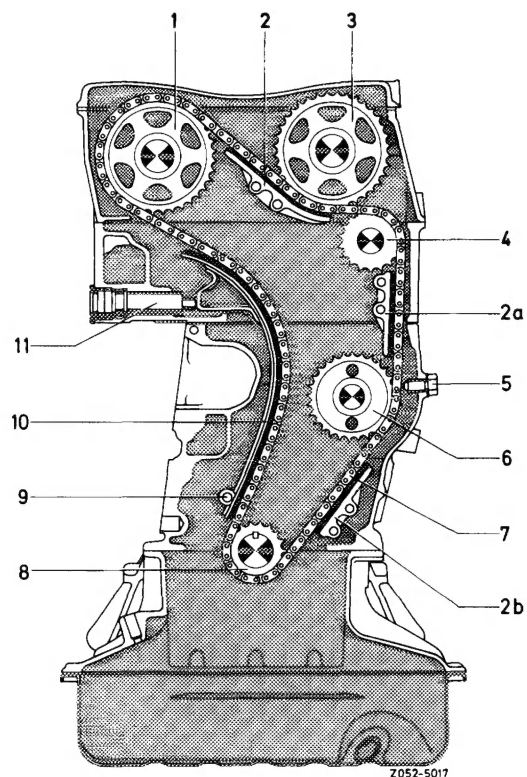
2 Remove chain tensioner or spring in chain tensioner (05-310).

3 Mark relation of camshaft sprockets and timing chain with paint.

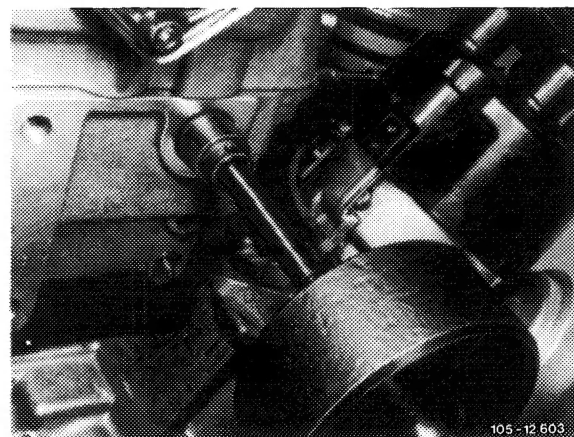
4 Remove sliding rail (2) in camshaft housing.

#### Chain drive

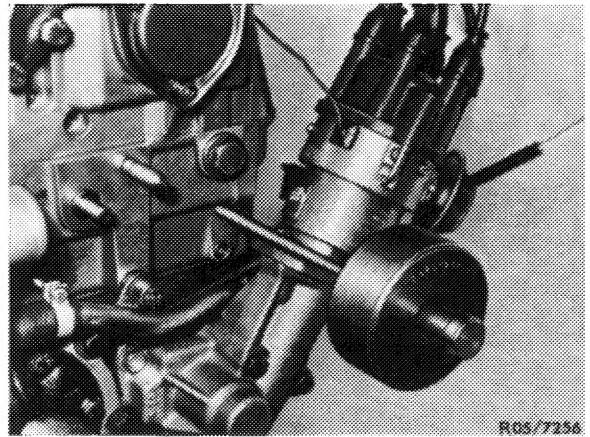
- 1 Exhaust camshaft sprocket
- 2-2b Sliding rail
- 3 Intake camshaft sprocket
- 4 Guide wheel
- 5 Lock screw
- 6 Intermediate wheel
- 7 Timing chain
- 8 Crankshaft sprocket
- 9 Tensioning rail bearing pin
- 10 Tensioning rail
- 11 Hydraulic chain tensioner



5 Connect a wire hook (5 mm thick) to guide wheel (4) and knock out the bearing pin with an impact extractor (10 mm bolt).  
Remove guide wheel.



- 6 Knock out sliding rail pin with an impact extractor and pull out sliding rail with a wire hook.
- 7 Installation in reverse sequence of removal.



#### Sliding rail (2b) in crankcase

- 1 Remove radiator.
- 2 Remove entire oil pan (01—310).
- 3 Remove vibration damper and balance disc (03—340).
- 4 Mark relation of camshaft sprockets and timing chain with paint.
- 5 Remove sliding rail (2) and guide wheel (4).
- 6 Remove chain tensioner or compression spring (05—310).
- 7 Knock out sliding rail pin with an impact extractor and remove sliding rail.
- 8 Installation in reverse sequence of removal.

